

Scaled data based on original data using  
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact  
Fluorescent Lamps

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: SHAPER

Report Number: 19377

Luminaire Tested: **233-14-SP-CF2/26**

Issue Date: 3/3/2020

**Test Information**

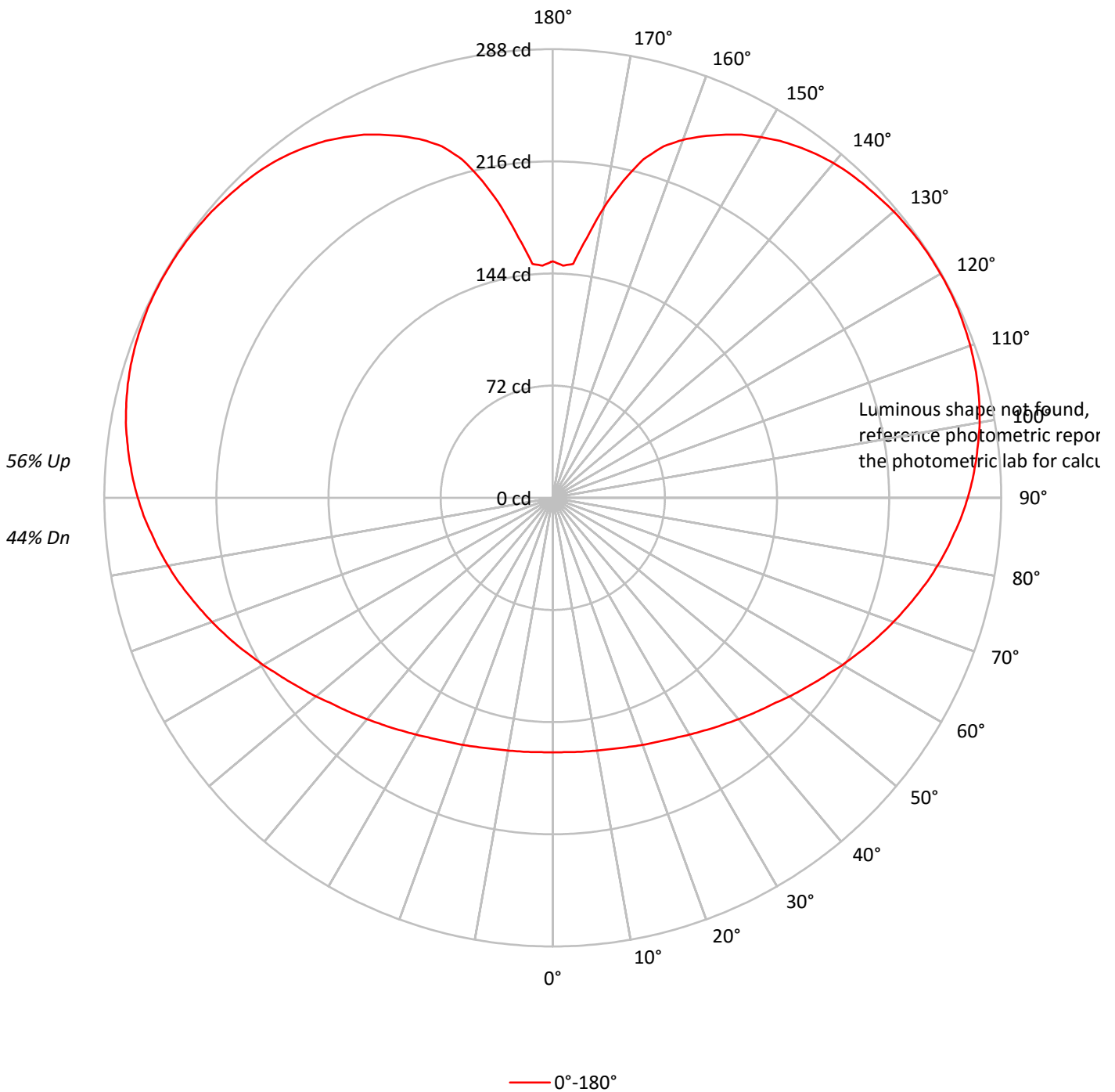
Test Method: LM-66-11  
Report Number: 19377  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 233-14-SP-CF2/26  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE GLASS LENS  
  
Light Source: TWO SYLVANIA 26 WATT CPFL LAMPS  
  
CF26DT/E/IN/841. LUMEN RATING = 3600 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3600 (1 lamp)  
Luminaire Lumens: 3079.4 lumens  
Efficiency: 85.5%  
Efficacy: 57.0 lumens/watt  
Spacing Criteria (0/90/45): 1.71 / 1.71 / 1.96  
Luminous Opening: (L: 0' x W: -0.08' x H: 0.58'  
CIE Type: General Diffuse  
  
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 90 | 90 | 90 | 90 | 83 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 | 43 | 43 | 43 | 38 |
| 1   | 79 | 73 | 69 | 64 | 71 | 67 | 62 | 59 | 54 | 51 | 48 | 43 | 40 | 38 | 32 | 30 | 29 | 24 |
| 2   | 70 | 62 | 55 | 50 | 63 | 56 | 50 | 45 | 45 | 41 | 37 | 35 | 32 | 29 | 26 | 24 | 22 | 17 |
| 3   | 63 | 53 | 46 | 40 | 57 | 48 | 42 | 36 | 39 | 34 | 30 | 30 | 26 | 23 | 22 | 19 | 17 | 13 |
| 4   | 57 | 47 | 39 | 33 | 52 | 42 | 35 | 30 | 34 | 29 | 24 | 26 | 22 | 19 | 19 | 16 | 14 | 10 |
| 5   | 52 | 41 | 33 | 27 | 47 | 37 | 30 | 25 | 30 | 25 | 20 | 23 | 19 | 16 | 17 | 14 | 11 | 8  |
| 6   | 48 | 36 | 29 | 23 | 43 | 33 | 26 | 21 | 27 | 21 | 17 | 21 | 17 | 13 | 15 | 12 | 10 | 7  |
| 7   | 44 | 33 | 25 | 20 | 40 | 30 | 23 | 18 | 24 | 19 | 15 | 19 | 15 | 12 | 14 | 11 | 8  | 6  |
| 8   | 41 | 29 | 22 | 17 | 37 | 27 | 20 | 16 | 22 | 17 | 13 | 17 | 13 | 10 | 13 | 10 | 7  | 5  |
| 9   | 38 | 27 | 20 | 15 | 34 | 24 | 18 | 14 | 20 | 15 | 11 | 16 | 12 | 9  | 12 | 9  | 6  | 4  |
| 10  | 35 | 24 | 18 | 13 | 32 | 22 | 16 | 12 | 18 | 13 | 10 | 14 | 11 | 8  | 11 | 8  | 6  | 4  |

**AVERAGE LUMINANCE (cd/sqm):**





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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 15.7   | 0.5       | 0.4    |
| 10°-20°   | 47.2   | 1.5       | 1.3    |
| 20°-30°   | 79.6   | 2.6       | 2.2    |
| 30°-40°   | 113.4  | 3.7       | 3.1    |
| 40°-50°   | 148.5  | 4.8       | 4.1    |
| 50°-60°   | 185.1  | 6.0       | 5.1    |
| 60°-70°   | 222.2  | 7.2       | 6.2    |
| 70°-80°   | 256.0  | 8.3       | 7.1    |
| 80°-90°   | 282.5  | 9.2       | 7.8    |
| 90°-100°  | 297.5  | 9.7       | 8.3    |
| 100°-110° | 298.6  | 9.7       | 8.3    |
| 110°-120° | 284.7  | 9.2       | 7.9    |
| 120°-130° | 257.5  | 8.4       | 7.2    |
| 130°-140° | 219.6  | 7.1       | 6.1    |
| 140°-150° | 172.7  | 5.6       | 4.8    |
| 150°-160° | 119.2  | 3.9       | 3.3    |
| 160°-170° | 63.6   | 2.1       | 1.8    |
| 170°-180° | 15.8   | 0.5       | 0.4    |
| 0°-30°    | 142.5  | 4.6       | 4.0    |
| 0°-40°    | 255.9  | 8.3       | 7.1    |
| 0°-60°    | 589.5  | 19.1      | 16.4   |
| 0°-90°    | 1350.3 | 43.8      | 37.5   |
| 90°-120°  | 880.7  | 28.6      | 24.5   |
| 90°-150°  | 1530.6 | 49.7      | 42.5   |
| 90°-180°  | 1729.0 | 56.1      | 48.0   |
| 0°-180°   | 3079.4 | 100.0     | 85.5   |

**CANDELA DISTRIBUTION:**

|      | 0°  | Flux |
|------|-----|------|
| 0°   | 163 |      |
| 5°   | 164 | 16   |
| 15°  | 166 | 47   |
| 25°  | 172 | 80   |
| 35°  | 180 | 113  |
| 45°  | 191 | 148  |
| 55°  | 206 | 185  |
| 65°  | 224 | 222  |
| 75°  | 242 | 256  |
| 85°  | 259 | 210  |
| 90°  | 266 | 146  |
| 95°  | 273 | 224  |
| 105° | 282 | 299  |
| 115° | 287 | 285  |
| 125° | 287 | 258  |
| 135° | 284 | 220  |
| 145° | 275 | 173  |
| 155° | 257 | 119  |
| 165° | 225 | 64   |
| 175° | 151 | 16   |
| 180° | 152 |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°     |       |
|--------|-------|
| 0°     | 163.4 |
| 2.5°   | 163.4 |
| 5°     | 163.8 |
| 7.5°   | 164.2 |
| 10°    | 164.7 |
| 12.5°  | 165.4 |
| 15°    | 166.3 |
| 17.5°  | 167.4 |
| 20°    | 168.8 |
| 22.5°  | 170.0 |
| 25°    | 171.6 |
| 27.5°  | 173.4 |
| 30°    | 175.5 |
| 32.5°  | 177.7 |
| 35°    | 180.3 |
| 37.5°  | 182.7 |
| 40°    | 185.5 |
| 42.5°  | 188.4 |
| 45°    | 191.4 |
| 47.5°  | 194.5 |
| 50°    | 198.4 |
| 52.5°  | 202.1 |
| 55°    | 206.1 |
| 57.5°  | 210.1 |
| 60°    | 214.7 |
| 62.5°  | 219.0 |
| 65°    | 223.8 |
| 67.5°  | 228.3 |
| 70°    | 232.9 |
| 72.5°  | 237.4 |
| 75°    | 241.9 |
| 77.5°  | 246.6 |
| 80°    | 250.9 |
| 82.5°  | 255.1 |
| 85°    | 258.9 |
| 87.5°  | 263.0 |
| 90°    | 266.5 |
| 92.5°  | 269.8 |
| 95°    | 272.8 |
| 97.5°  | 275.6 |
| 100°   | 278.4 |
| 102.5° | 280.5 |
| 105°   | 282.5 |
| 107.5° | 284.1 |
| 110°   | 285.3 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    |
|--------|-------|
| 112.5° | 286.3 |
| 115°   | 287.1 |
| 117.5° | 287.5 |
| 120°   | 287.6 |
| 122.5° | 287.5 |
| 125°   | 287.3 |
| 127.5° | 286.6 |
| 130°   | 285.9 |
| 132.5° | 284.7 |
| 135°   | 283.6 |
| 137.5° | 282.3 |
| 140°   | 280.5 |
| 142.5° | 278.1 |
| 145°   | 275.1 |
| 147.5° | 271.6 |
| 150°   | 267.3 |
| 152.5° | 262.8 |
| 155°   | 257.1 |
| 157.5° | 251.2 |
| 160°   | 244.6 |
| 162.5° | 236.6 |
| 165°   | 224.9 |
| 167.5° | 208.1 |
| 170°   | 189.3 |
| 172.5° | 168.4 |
| 175°   | 150.7 |
| 177.5° | 149.2 |
| 180°   | 151.8 |

(END OF REPORT)